

PROTECTION AND LAND REUSE
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The Pootatuck Watershed Association, Inc.
PO Box 3303, Newtown, CT 06470
(203)426-6538

Mr. Paul E. Stacey
Department of Environmental Protection
Bureau of Water Protection and Land Reuse
Planning and Standards Division
79 Elm Street
Hartford, CT 06106-5127

Testimony in support of the Proposed Stream Flow Standards and Regulations

Mr. Stacey,

As President of the Pootatuck Watershed Association (PWA), I am writing today to express my support for the Proposed Stream Flow Standards and Regulations.

Our organization represents over 50 members living in the town of Newtown, CT, and has been actively involved since 2005 working to protect and restore the valuable water resources including an *EPA designated Sole Source Aquifer* and *CT DEP Class 1 Wild Trout Management Area*.

Our Board consists of the Town of Newtown, Newtown Forest Association, Potatuck Club and Candlewood Valley Trout Unlimited, as well as several local leaders. Some of our major accomplishments have included: initiation of a USGS Aquifer Study and modeling program, scientific research including various ongoing water sampling projects and several habitat restoration projects. These efforts were the result of thousands of hours of volunteer commitment, significant Town resources and thousands of dollars in grant funds from Federal, local and private sources. We are a dedicated group of residents, conservationists and community leaders passionate about Connecticut's water quality and ecology.

The PWA's mission is to ensure clean and abundant water for Newtown's future. We accomplish this mission through: Protecting our water resources; advocating for responsible development; improving and connecting habitat; and Sustaining these efforts through our education and outreach to help residents understand the importance of good stewardship, and the inherent value of our resources to both humans and the flora and fauna we share our world with.

The importance of the Proposed Stream Flow Standards and Regulations, and the impact they will have of improving the quality of one of our state's most precious natural

resources, in concert with providing sustainable potable water delivery, cannot be emphasized enough.

The proposed regulations have been a long time in coming

Connecticut's current regulations date back to 1979 and are grossly outdated. It has been widely acknowledged that the standards set at that time were created under inadequate scientific study and were not advised with the benefit of today's advanced understanding of coldwater ecological needs. The unfortunate combination of Registered water allocation and continued permitting, in addition to the many exempt and unregulated withdrawals, has woefully over-allocated our water supplies. This is exacerbated by a unique policy that restricts water withdrawals to only Class A systems, the very waters that are put under the most stress under low flow periods and provide the last refuge for native aquatic species.

In 2005, the state legislature recognized the many gaps in our state's stream flow regulations and enacted legislation that sought to close these gaps and address the need to balance and improve water use in Connecticut. Over the past four years, your department's staff and the Commissioner's Advisory Group carefully considered the many uses of our water resources and worked to draft proposed regulations which balanced the human needs with the ecological requirements of healthy river systems. We thank you for your careful and conscientious work.

Given the 30 years since Connecticut's regulations were last modified, the time is now to implement stream flow standards which will help preserve and improve the state's rivers and streams while providing protection to water supplies for human needs.

The proposed regulations are vital to protecting our rivers and streams

Water in Connecticut is a public resource, held in trust for the citizens of the state, and protected and preserved for a myriad of uses.

With average annual precipitation of 45 inches, Connecticut is blessed with abundant water resources. There is plenty of water to go around, if managed correctly, and these regulations will help lead the way to improved water management in the state.

Along with consumption, industry and agriculture, the recreational use of Connecticut's rivers and streams is a quality of life issue important to our state's residents. This recreational use is also an economic boon to the state and to local business.

But the current regulations do not adequately protect the fragile ecology of our rivers and streams.

Rivers in Connecticut already face an abundance of threats. Habitat fragmentation due to dams, culverts and other passage barriers prevent trout and other aquatic inhabitants from traveling within river systems, a vital component of spawning and survival. Ever-increasing development throughout our watersheds and along our watercourses has added

a slew of challenges such as non-point source pollution, unnatural temperature variances, increased groundwater withdrawals and more.

While these threats can be, and are being addressed through active advocacy, education, outreach and restoration initiatives, the one key aspect of a healthy river system which cannot be adequately addressed at the grass-roots level is the presence of natural water flows. These regulations are the only way to ensure that a consistent, natural flow will exist in all of Connecticut's rivers and streams, providing the needed habitat to allow species to survive and thrive.

Indeed low flows are also an indication that the potable water resource is being threatened as well. As wells begin to draw water directly from rivers rather than a well-recharged ground water source. Currently we are receiving results from the USGS as the Aquifer Study progresses and the data shows that in many instances the wells are drawing 50% or more of the water directly from the Pootatuck River. Unfortunately the water company, as a Registered user, currently has the "right" to withdraw much more water, even during drier times, and we fear the worst may happen without any stream flow standards in place.

Just one or two periods of low flow in consecutive years, or worse a complete desiccation of a stretch of river, can devastate a wild trout population with impacts which will take many years and decades to reverse. In some cases, a single, significant low flow incident can mean the death knell to the fragile life in a river or stream. Additionally during such a scenario in a system such as the Pootatuck, being a Sole Source Aquifer, there is no other source of drinking water for thousands of people and businesses.

The proposed regulations are a significant step forward

The first, and perhaps most significant aspect of the proposed regulations is that they will apply to every river and stream in Connecticut.

The existing regulations, aimed at the state's stocked streams, do not protect the native and wild trout and other aquatic life that have managed to survive despite the impacts of human development and encroachment. These naturally existing populations and habitats are the most important to protect and improve.

The proposed regulations also require more protective stream flows, which more closely match the natural flow patterns. In working to preserve, protect and restore the natural river ecology, there is nothing more important than stream flows which follow the region's natural hydrography.

Our native aquatic species have evolved over the millennium to take advantage of Connecticut's unique stream flow patterns and do best when such conditions exist. Clearly the most critical period is the Rearing and Growing bioperiod, when unnaturally low flows can cause significant population mortality. But also important are the high flow periods, when an abundance of precipitation allows for the rivers and streams to naturally

flush out sedimentation, redistribute vital nutrients throughout the river system and build the habitat and structure needed for a healthy ecosystem.

Unfortunately, water retention and diversion has led to significant changes in the natural flows of our state's rivers and streams. The low flow periods now last longer and reach lower levels than ever before. The high flow periods are shorter and more abrupt.

Returning our streams to a more natural flow pattern will have a significant impact on the quality and health of the ecosystem.

Also crucial to the success of the proposed regulations is the inclusion of standards for groundwater withdrawal. The current regulations do not protect the groundwater systems where a growing portion of the state's residents are residing. Groundwater withdrawals MUST continue to be included in the regulations and ongoing enforcement. For the sake of residents as well as the natural resources.

The majority of our suburban and rural residents depend on groundwater because Connecticut law presently prohibits drinking water to be taken from surface water systems, such as our lakes and larger rivers that receive certain discharges. That puts enormous pressure on groundwater reserves and on those few clear streams that receive no discharges and which often support wild trout.

Careful study, implementation and monitoring of the cumulative effects of groundwater withdrawals on the stream flows of rivers throughout the state is vital to ensuring these regulations have their desired effect.

The proposed regulations will be realistically implemented

While the proposed regulations require significant changes to the management of Connecticut's water resources, they will be phased in so as to limit the challenges of accomplishing the required classification and implementation steps.

The new regulations recognize the varied viability and ecological conditions of the many rivers and streams throughout the state and include a classification system that provides a sliding scale of stream flow protections based on a number of criteria.

This classification process, which would be conducted over the first five years of the regulation period is carefully crafted to include ample opportunity for public discourse and input. Stakeholders in each of the state's five major watershed will have adequate time to work with state staff to determine the proper classification of each individual river and stream.

In the case that a classification be considered improper, there is a petition process in the proposed regulations to allow for review and possible changes. The proposed regulations also allow for a classification to be changed should ecosystem quality improve or water use requirements change.

This flexibility provides more than adequate recourse for those involved in the consumptive use of Connecticut's water resources while also ensuring the ecological needs and recreational uses of the rivers and streams is protected.

The proposed regulations also go further, by providing a specific mechanism for individualized flow management plans to be created for any of the state's river systems. Allowing, or even encouraging such individualized plans opens the door to the creation of localized stream flow management that can take advantage of local conditions and needs and provide a plan that is more ideally suited for that particular river system. Using science and planning, water conservation and new technology, we can ensure much better and safer allocation of our water resources.

Such individualized watershed compacts provide additional flexibility to those involved in consumptive water use to work with local stakeholders to strike a balance which would likely provide increased water availability for human use and improved stream flows for ecological needs. We believe that the greatest affect the proposed regulations would have is as the catalyst to bring these stakeholders together. Perhaps this process may lead to even greater innovation in an industry that is woefully entrenched in standardized practices.

Additionally, the exemptions in the proposed regulations and the provisions on the public's right to water in case of drought or other emergency, provide assurance that the regulations do not arbitrarily ignore the human needs.

The proposed regulations have areas that should be strengthened

While the proposed regulations make great strides in accomplishing the goals and intents of the enacted legislation, there are areas where they should be strengthened.

When it comes to groundwater withdrawals, the proposed regulations should ensure that such withdrawals do not result in flow reductions in nearby streams, or even worse, the complete drying out of a streambed, which has been known to happen. At the lowest flow periods, when the stress is greatest on trout and other aquatic life, cutting back or completely eliminating groundwater withdrawals which would impact stream flows is essential and should be included in the regulations.

Also included in the proposed regulations is a Class 4 designation that is specified for rivers exhibiting "substantially altered stream flow conditions caused by human activity." Among the stream flow requirements for a Class 4 river in the proposed regulations is the release "the greater of 0.1 cfs/m."

This limited stream flow requirement is inadequate to protect urban rivers designated as Class 4. While the ecological health of such streams may be diminished, it is clear that such streams can be, and have been rehabilitated to a condition where aquatic life and recreational value are greatly improved.

At the least, Class 4 designations should include minimum flow standards that allow for the sustenance of existing ecological conditions and aquatic life, providing an opportunity for future restoration work and future water management advancements. Such limited protections, as are currently included in the proposed regulations, may cause irreparable harm to Class 4 streams, such that they could never be rehabilitated even if the desire, will, financing and technology were available to do so.

Additionally, while the regulations allow for changes in classification should ecological conditions improve in a given river, conspicuously absent from the proposed regulations is any language aimed at actively promoting the improvement of the health of Connecticut's rivers.

The proposed regulations should include an emphasis and impetus for the state, consumptive water users, conservation groups and the general public to actively work to improve the health of our state's rivers and streams. This encouragement of river improvement is particularly important for Class 3 and 4 rivers, which can benefit greatly from restoration efforts.

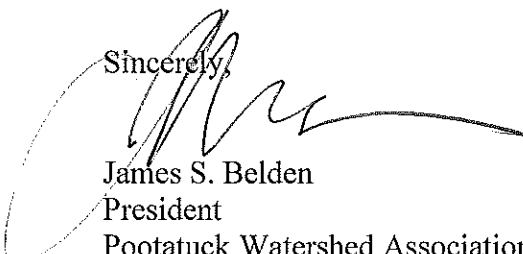
The proposed regulations are balanced and thoughtful

In conclusion, the Proposed Stream Flow Standards and Regulations represent an important step in ensuring an abundant supply of water for human use while protecting the ecological needs and recreational enjoyment of Connecticut's rivers and streams.

Balancing these needs is a difficult task, and the proposed regulations admirably create a standard that accounts for that balance. Again, we feel that the greatest value may not be in the exact manner the regulations are enforced, but instead in the impact they will have requiring every water system and watershed to develop allocation plans which consider every stakeholder and user.

I would ask that you carefully consider the proposed regulations in light of these and other public comments, with particular attention paid to the classification process, the need to provide at least minimal protection to Class 4 streams and the importance of including within the regulations a specific avenue for improving stream ecology.

Sincerely,



James S. Belden

President

Pootatuck Watershed Association, Inc.

3 Oak Ridge Drive

Newtown, CT 06470